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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
09/156,957	09/18/98	ELDRIDGE	B 003401.P006D

MMC2/0913

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EXAMINER

BROWN, G

ART UNIT

PAPER NUMBER

2858

DATE MAILED: 09/13/00

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

Office Action Summary

Application No.

09/156,957

Applicant(s)

ELDRIDGE ET AL.

Examiner

Glenn W Brown

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

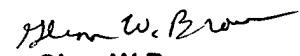
- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).

Status

- 1) ☒ Responsive to communication(s) filed on 19 June 2000.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-35 and 37-60 is/are pending in the application.
- 4a) Of the above claim(s) 34 and 37-42 is/are withdrawn from consideration.
- 5) ☒ Claim(s) 2-4 and 43 is/are allowed.
- 6) ☒ Claim(s) 5-33, 35 and 44-60 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claims _____ are subject to restriction and/or election requirement.


Glenn W. Brown
Primary Examiner

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).
- a) ☐ All b) ☐ Some * c) ☐ None of the CERTIFIED copies of the priority documents have been:
1. ☐ received.
2. ☐ received in Application No. (Series Code / Serial Number) _____.
3. ☐ received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

- 14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. & 119(e).

Attachment(s)

- 15) ☒ Notice of References Cited (PTO-892) 18) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 19) ☐ Notice of Informal Patent Application (PTO-152)
- 17) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____ 20) ☐ Other: _____

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The disclosure is objected to because of the following informalities:

On p. 1, the section "CROSS-REFERENCE TO RELATED APPLICATIONS" should be updated to indicate that the present application is a divisional of 08/554,902 and any other intermediate application. Also, the information in the last paragraph on the page is improper. In order for an application to be considered a CIP, the application must be filed while the parent applications are still pending. Application 08/526,246 went abandoned on August 13, 1998 and application 08/533,584 issued as a patent on June 30, 1998, both dates occurring before the September 18, 1998 filing date of the present application.

Appropriate correction is required.

Claims 5-7 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

In claim 5 (Twice Amended), line 4, "the second plurality of terminals" lacks antecedent basis. Perhaps "plurality" should be changed to --set--.

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

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Claims 8-33, 35, and 44-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Driller et al. ('596).

Driller et al. disclose a connecting arrangement having elastically compressible plugs 14 and 15 formed on corresponding contact areas 12 and 13 on opposite sides of an adapter board 8. The board 8 is in contact with probe cards and space transformers for forming a probe card assembly.

Claims 45-60 are rejected under 35 U.S.C. 102(b) as being anticipated by any one of Japanese Patent 62-44285, Kanji et al. ('007), Benarr et al. ('451), or Boegh-Petersen ('657).

Each of the above references individually disclose all of the features of the claims wherein an interposer or space transformer having "resilient" contact structures formed on at least one surface thereof contacts a probe card having contact terminals on one side.

Claims 45-60 are rejected under 35 U.S.C. 102(a), (b), and (e) as being anticipated by Bargain et al.

Bargain et al. discloses a board having resilient contacts on one side thereof, the other side having contacts which connect to the contact terminals of a probe card.

Claims 45-60 are rejected under 35 U.S.C. 102(e) as being anticipated by Higgins et al.

Higgins et al. disclose a probe card assembly having a probe array 11 formed having resilient contacts (Fig. 2). Contact is made to interconnects and probe cards.

Claims 53-60 are rejected under 35 U.S.C. 102(b) as being anticipated by Japanese Patent 63-243768.

Japanese Patent show interposer making contact to probe card.

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Claims 53-60 are rejected under 35 U.S.C. 102(a) and (b) as being anticipated by German Patent DE 42 37 591.

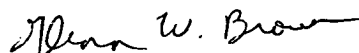
The German patent shows interconnection boards having terminal contacts on opposite sides making contact to probe cards etc.

Claims 2-4 and 43 are allowed.

Claims 5-7 would be allowable if rewritten or amended to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action.

The prior art of record does not teach or suggest an interposer having the structure as claimed in claim 43 wherein resilient contact structures, formed on terminals on opposite sides of a substrate, are configured to include a contact region distant from the substrate and an elongate section extending from the substrate and resiliently bending upon depression, and wherein the contact regions of adjacent contact structures are spaced differently.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Glenn W Brown whose telephone number is 305-4771. The examiner can normally be reached on 4-5-9.


Glenn W Brown
Primary Examiner
Art Unit 2858

GWB
September 8, 2000